

REMARKS

Reconsideration and allowance are respectfully requested in view of the foregoing amendments and the following remarks.

Upon entry of this amendment, claims 1-17 and 19-28 are pending in the application. By this Amendment, claims 1, 4, 7, 12, 15, 19, and 23 have been amended, claim 18 has been cancelled, and claims 25-28 have been added.

Claims 12 and 23 are objected to because of informalities noted by the Examiner. Claims 12 and 23 have been amended for clarity purposes in order to overcome this objection. Accordingly, withdrawal of this objection is respectfully requested.

Claims 1-9, 13-15, 17-19, 21 and 23 are rejected under 35 U.S.C. § 102(b) by Riches et al. (U.S. Patent 4,550,967). This rejection is respectfully traversed.

Claim 1 is directed to a plug retaining assembly including a retaining clip including a lug engaging mechanism structured to allow disengagement of the plug from the socket at a predetermined release force applied to the plug. The retaining clip is movably positioned with respect to the socket for movement between (1) a non-plug-retaining position, and (2) a plug-retaining position wherein a sloping surface of the lug engaging mechanism engages the lug. The sloping surface has an angle that is at least partially determinative of the predetermined release force.

As best shown in Figs. 1, 4, 5, 6, and 7, Riches discloses a plug member having spring rings 40, 50, 60, 70 mounted within respective bores 38 in the plug member. The spring rings project slightly into a slot 36 adapted to receive a pin 20 on the receptacle. The projecting portion of the spring rings has an arcuate configuration and retains the pin 20 within the slot 36 against a weak uncoupling force.

First, Riches does not disclose a retaining clip that is movably positioned with respect to the socket for movement between (1) a non-plug-retaining position and (2) a plug-retaining position as recited in claim 1. In contrast, Riches discloses spring rings that are securely mounted within respective bores 38 in the plug member.

Second, Riches does not disclose a retaining clip including a sloping surface that engages the lug, wherein the sloping surface has an angle that is at least partially determinative of the predetermined release force as recited in claim 1. Rather, Riches discloses an arcuate-shaped spring ring that engages a pin. The arcuate-shaped spring ring does not provide a sloping surface having an angle. In contrast, the arcuate-shaped spring ring provides a curved surface having a curvature. Curvature is not an angle, but the rate of change of the angle through which the tangent to a curve turns in moving along the curve.

Withdrawal of the rejection of claim 1 is respectfully requested.

Claims 2, 3, 13-15, 17, 19, and 21 are allowable by virtue of their dependence on claim 1 and additionally allowable for their recitation of additional patentable subject matter.

With regard to claims 4 and 7, Riches does not disclose engaging the plug with the socket, and moving the lug engaging mechanism with respect to the engaged plug and socket to position the wedge angle with respect to the lug as recited in claims 4 and 7. In contrast, Riches discloses spring rings that are securely mounted within respective bores 38 in the plug member. Further, Riches does not disclose providing a retaining clip having a wedge angle as recited in claims 4 and 7. In contrast, Riches discloses spring rings having a curvature, not an angle. Additionally, Riches does not disclose selecting the wedge angle in accordance with the predetermined release force as recited in claim 4, and selecting a resilience of the retaining clip in accordance with the predetermined release force as recited in claim 7. In contrast, Riches

merely discloses adjusting the degree at which the spring rings project into the slot (e.g., see col. 3, lines 43-50 and col. 4, lines 11-15).

Withdrawal of the rejection of claims 4 and 7 is respectfully requested.

Claims 5 and 6 are allowable by virtue of their dependence on claim 4 and additionally allowable for their recitation of additional patentable subject matter, and claims 8, 9, and 23 are allowable by virtue of their dependence on claim 7 and additionally allowable for their recitation of additional patentable subject matter.

Claims 1, 10-12 and 14-16 are rejected under 35 U.S.C. § 102(b) by Leong et al. (U.S. Patent 5,713,752). This rejection is respectfully traversed.

Leong does not disclose a retaining clip including a sloping surface that engages the lug, wherein the sloping surface has an angle that is at least partially determinative of the predetermined release force as recited in claim 1. In contrast, Leong discloses a latch device having a hook 41 that engages a complimentary hook 41' of the matable connector 10'. The hooks 41, 41' remain engaged when the connectors 10, 10' are disengaged. (See col. 3, lines 35-54) The hook 41 does not include a sloping surface that has an angle that is at least partially determinative of the predetermined release force.

Withdrawal of the rejection of claim 1 is respectfully requested.

Claims 10-12 and 14-16 are allowable by virtue of their dependence on claim 1 and additionally allowable for their recitation of additional patentable subject matter.

Claims 20, 22 and 24 are rejected under 35 U.S.C. § 103(a) over Riches et al. Claim 20 should be allowable by virtue of its dependence on claim 1 and additionally allowable for its recitation of additional patentable subject matter, claim 22 should be allowable by virtue of its dependence on claim 4 and additionally allowable for its recitation of additional patentable

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subject matter, and claim 24 should be allowable by virtue of its dependence on claim 7 and additionally allowable for its recitation of additional patentable subject matter.

New claims 25-28 have been added. Entry and allowance of these new claims is respectfully requested.

In view of the above amendments and remarks, Applicants respectfully submit that all claims are patentable and that the entire application is in condition for allowance.

Should the Examiner believe that anything further is desirable to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the below listed telephone number.

Respectfully submitted,

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